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NAUTICAL RESEARCH JOURNAL

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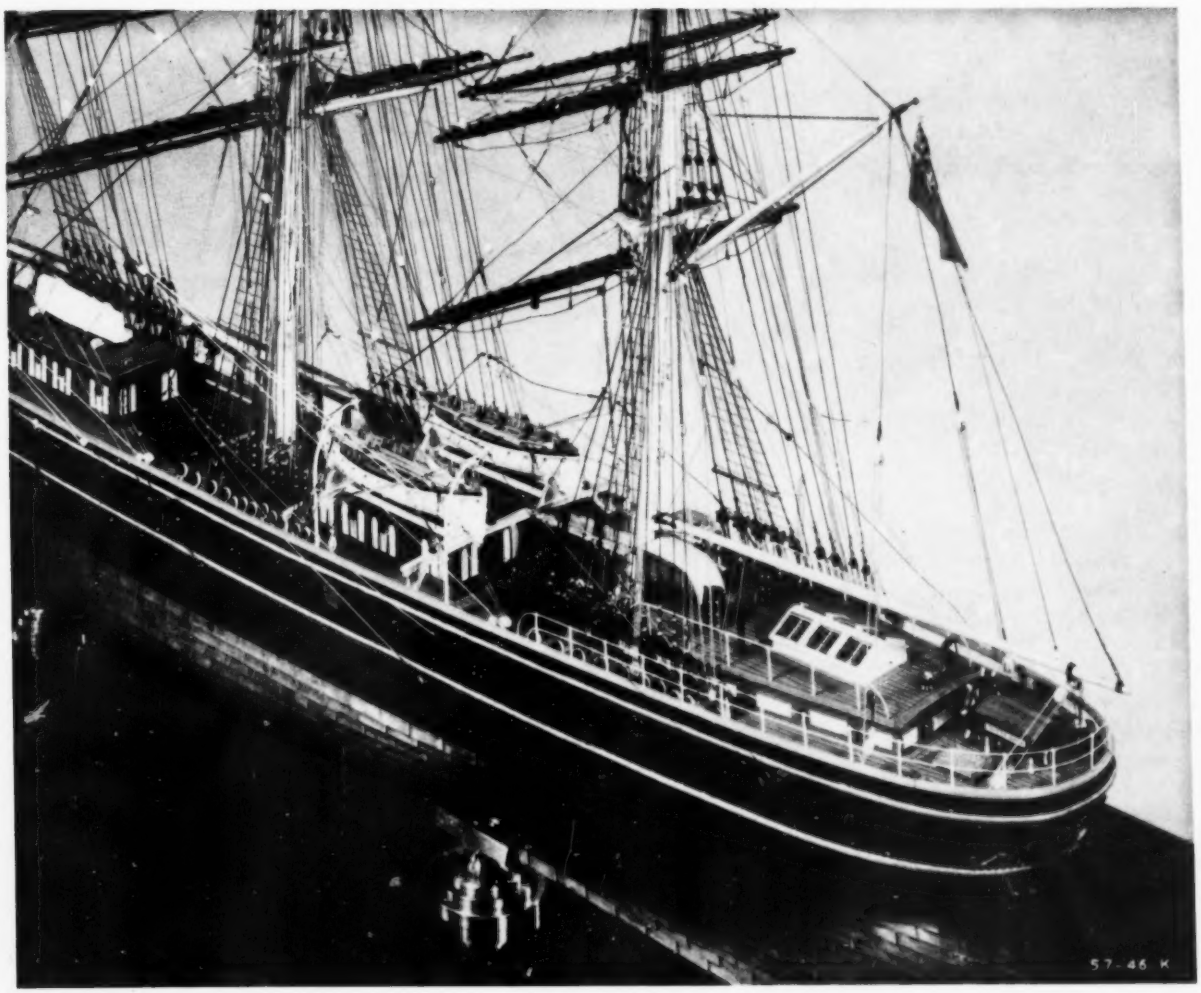

THE CUTTY SARK

INTRODUCTION OF NEW MEMBERS

ROBERT KIDDER BODENSTEIN - Old Post Road, Staatsburg, New York: a model builder for the past 25 years; interested in early American Naval sailing ships.

FRANCIS GALLAGHER - 104 Lexington Avenue, New York 16, New York: is interested in nautical research and history of old sailing ships.

DR. CHARLES R. GUTHRIE - 6500 W. Franklin Street, Richmond, Virginia: a model builder interested in the merchant ship era of 1841-1860. Presently building a model of the SEA WITCH and would like to learn if authoritative pictures of the vessel exist showing deck details. Dr. Guthrie is a member of the Richmond Ship Model Society.

COL. WILLIAM E. HARPER - Route 2, Box 271, Mason, Tennessee: reports he is interested in "anything nautical" and has so far accomplished 10 Atlantic and 2 Pacific crossings. Mr. Harper is an enthusiastic model builder and is presently searching for material available on the coal schooner WYOMING. He has an extensive reference library and an impressive collection of historic models constructed under trying conditions.

CECIL J. HILL, JR. - 5413 E. 19th Street, Indianapolis, Indiana: indicates his interest centers around vessels of the Civil War - and would like to meet other ship model builders in the vicinity so as to swap shop notes. Member of the Indianapolis Civil War Round-Table.

JUAN KOVÁCS - Jefe de Manenimiento, Centro de Salud, El Tigre/Anzoátegui, Venezuela, South America: is interested in ship model construction.

ARTHUR R. KOESTER - 1826 Ramona Avenue, South Pasadena, California: describes his interests as "clipper ships; Frigate CONSTITUTION: early navigation and chart making, naval activities of the Americans and British during the French-Indian, Revolution and War of 1812 periods." Mr. Koester is a photographer and collector of nautical books and publications, as well as early maps and charts.

HERBERT H. LAMPEE - c/o Detroit Times, 1370 Cass Avenue, Detroit, Michigan: is a model builder interested in naval craft of World War II vintage. He is a past member of the Charlotte Model Shipwrights. Mr. Lampee advised he comes from a New England background with both great grandfathers Boston Pilots. Was a member of Fletcher Pratt's War Game group in N. Y. C. during the late thirties and early forties. Served 3-1/2 years in the Pacific Naval area and still likes to study and lecture on same.

JAMES H. MC CAULEY - 3310 Shelmire Avenue, Philadelphia, Pennsylvania: is a marine artist interested in all phases of nautical research that will serve his needs. His favorite interest lies in below decks details, ports of the world, shipyards and related technical details.

LLOYD E. MANLEY - 6081 Olentangy Rv. Rd., Worthington, Ohio: is a builder of models of wooden sailing craft, and collects photos, plans and books on the subject. He would like to contact other builders presently engaged in plank and rib construction, also those having access to the works of Steele, Fincham and Hall.

ALLAN MONDEAUX - 2400 Green Bay Road, Evanston, Illinois: states he is interested in square rigged merchant vessels of the 18th to 20th centuries. He is a "part-time" model builder. Member of Marine Historical Association and Royal National Life Boat Inst.

HARRY A. PRECOURT - 29 Wynnewood Road, Wellesley Hills, Massachusetts: is a model builder interested in the 1750 - 1825 period of sailing ships.

REV. ANDREW M. PROUTY - 9903 E. Taylor Street, Tacoma 44, Washington: is interested in ordnance, firearms and ships.

STEVE TARATINO - 7 North "S" Avenue, National City, California: a plank and rib model builder of considerable ability. Interested mostly in sailing ships of the 18th and 19th centuries, but is known to have built a beautiful modern tuna clipper with all the pertinent details from the keel up.

CAPTAIN EDGAR K. THOMPSON USN - Potomac River Naval Command, Washington 25, D.C.: investigates the origin of naval customs, traditions and etymology of nautical words. He collects miniature ship models in wine bottles.

ROBERT FRANCIS TOCZKO - 28 Lodi Street, Worcester 8, Massachusetts: is another "part-time" model builder. He collects data on American coasting schooners from Civil War times to date. A collector of data, plans, anecdotes, stories about the trade and so on, engaged in by the large schooners. Also assembles material relative to ships engaged in the "grain races". Member of the New York Ship Craft Club, U. S. Naval Institute and World Ship Society.

ROLLIN MILES WARNER, JR. - 673 Stern Hall, Stamford, California: is a supporter and booster of sea scouting, sailing, and rowing clubs. Member of the S.F. Jr. Chamber of Commerce (Marine Committee) and the Balclutha Association.

GARY M. WHITE - 109 Winnebago Street, Walla Walla, Washington: is very much interested in nautical affairs.

CHANGES OF ADDRESS

ALAN L. BATES - 701 Fountain Avenue, Louisville 7, Kentucky.
MRS. HERMAN BELKIN - 249-15 - 51 Avenue, Little Neck 62, New York.
MERLE E. BROWNE, JR. - 7417 E. Edgemont Avenue, Scottsdale, Arizona.
HERBERT S. EVANS - Point Road, Marion, Massachusetts.
H. T. FITZPATRICK - 2172 Campbell Road, Montgomery, Alabama.
JAMES R. HARPER - 4110 Tulare Drive, Wheaton, Maryland.
JAMES G. HARRINGTON - McLean, Virginia.
RICHARD L. HARTLEY - 2444 S.W. 29th Street, Oklahoma City, Oklahoma.
HAROLD D. HUYCKE, JR. - 12043 - 6th Ave. N.E., Seattle 55, Washington
MORTON KAPLAN - 41 Wimbleton Lane, Great Neck, New York.
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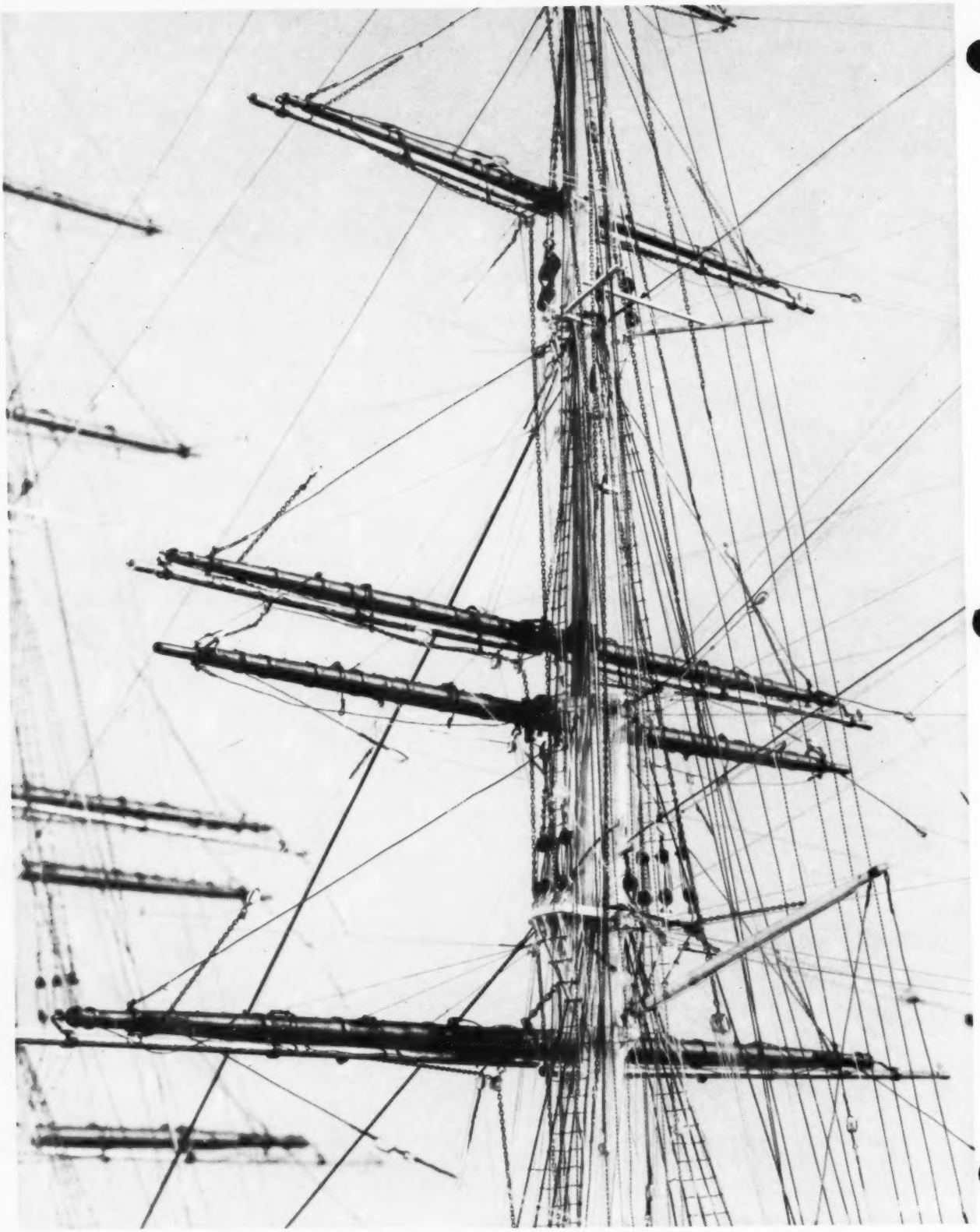
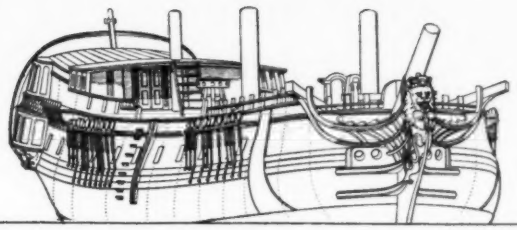
WILLIAM P. KRESKA - 14514 Hardaway Drive, La Mirada, California.
CAPTAIN P. A. MC DONALD - Apt. 11 Larkwood Apts., 116 Ward St., Larkspur, Calif.
PHILIP R. MARKUS - 19681 Parker, Ionia (Inonia) Michigan.
MICHAEL O'CONNOR - 346 Sheridan Road, Winnetka, Illinois.
IRVING S. OLDS - 14 Wall Street, New York 5, New York.
JOEL N. ROSSEN - 551 Waterway Drive, Falls Church, Virginia.
BERNHARD SCHULZE - Nevada State Museum, Carson City, Nevada.
RALPH O. SHEPHERD - Apartada 4418, Lima, Peru.
DR. GARLAND F. SMITH -1115 Hampton Park Cr., St. Louis 17, Missouri.
FRANK W. THOBER - 1360 York Avenue, New York 21, New York.
LCDR WILLIAM O. WIRT - Naval Air Test Center, Patuxent River, Maryland.
JOHN W. WOODSON - 18 Ralston Road, Richmond, Virginia.

DEATHS

HARPUR ALLEN GOSNELL of Princeton, New Jersey

JAMES HENRY MCLELLAN of Portland, Maine.





VOL. 10, NO. 3 THE NAUTICAL RESEARCH JOURNAL AUGUST, 1959

In the last issue we mentioned some changes in the editorial organization of the Nautical Research Guild. These have now been completed, and we believe they will result in more efficient operation.

All of the work of editing, printing, and distributing the Journal is being done in New York. In the future, therefore, all articles, book reviews, questions and answers, notes and comments - in short, anything for publication should be sent to:

Roy Rogers, Editor
5001 - 14th Avenue
Brooklyn 19, New York

The work will be distributed among more people and greater emphasis can be placed upon publishing the Journal at frequent intervals, on a normal schedule. This arrangement has been found successful in other societies and should eliminate long delays in publishing material after it has been submitted.

Jim Harbin continues to serve as Secretary-Treasurer, of course, Applications for memberships, payment of dues, changes of address, and other matters relating to the membership should be addressed to:

James W. Harbin, Jr., Secretary-Treasurer
4110 Beall Street
Landover Hills, Maryland

This is a good time to recall the great service that Jim has done for the Guild. After Harry Hamilton's death, he was almost solely responsible for its continuing as an active, useful organization. As editor, he produced a Journal that was consistently interesting and informative. We shall do our best to keep up to the same standard, and feel confident of being able to do so, if the members cooperate by submitting enough good material for publication.

Some members are under the impression that we are interested only in long articles, and hesitate to send in items of a page or less. This is not correct. While publications of this type never have an over-abundance of any kind of material, it is not a shortage of full-length articles that holds up the publishing of the Journal. Instead, it is the limited number of shorter items that cause the biggest delays.

After selecting one or two major articles for a new issue, space must be allotted for our regular features:- Questions and Answers, Notes and Comments, etc. The number

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Facing page - The main mast of the CUTTY SARK model shown on the cover. Notice that the studdingsail booms are placed below the yards. While this differs from customary practice, it agrees with the original specifications of the vessel (printed in Longridge's book on the ship). The photos of this fine model - it is only 1/9" scale - are reproduced through the courtesy of the owners, Bern C. Ritchie & Co. of Chicago.

of pages is restricted by our budget, so the Journal cannot be stretched to include additional long items, regardless of how interesting or useful they may be. It is often hard to find short contributions that can be fitted into the remaining space. Sometimes we have material that we are anxious to use, but it runs a few paragraphs too long and simply can't be squeezed in. Weeks can be consumed in corresponding with an author while he whittles down his article to a printable size. It is only by compiling a file of short contributions that we can plan issues sufficiently in advance.

Strangely enough, some readers are very willing to go to any length of trouble to prepare a lengthy article, but are reluctant to submit brief items that can be finished in a fraction of the time. Many subjects can be adequately presented in a few paragraphs, or a page or so, and they receive the same consideration. If we had a larger number of short subjects, the make-up time could be greatly reduced.

Virtually all of the material appearing in the Journal is unsolicited. In a very few cases, a member has been asked to write a particular article because he has unusual knowledge of a subject. And, at long intervals, a member will offer to provide something but wonders if it will appeal to others. (Answer: it usually will).

A growing number of members have been sending their answers to queries directly to the inquirer, while by-passing the Journal altogether. Of course this has saved time, but it has caused other readers to miss information they also were seeking. It is not unusual for a member to do a great amount of research to answer a personal request. Many facts are unearthed this way, only to be lost again. By sending copies to the Journal, these could be preserved and made available to everyone.

-Roy Rogers
Editor

THE NAUTICAL RESEARCH JOURNAL is published by members of the NAUTICAL RESEARCH GUILD. Membership dues are $5.00 per annum and include all issues of the Journal published during the year, plus index of the current volume and a copy of the latest Membership Roster. New members receive the numbers which have been previously issued in the current year.

Dues are payable January First of each year and are in force until receipt of the written resignation of the member. Opinions and assertions in the Journal are the private ones of the writers. All rights are reserved and no material may be reproduced without the written permission of the Editor.

The NAUTICAL RESEARCH GUILD is a non-profit and co-operative organization founded in 1948 by Harry D. Hamilton. All income of the Guild is used to defray publication and business expenses of the organization. No officer or member receives any monetary compensation for his contribution.

THE BELAYING OF GEAR IN A FRENCH MAN-OF-WAR OF c.1835

BY D. L. DENNIS

The following is extracted from "Manuel de Matelotage et de Manoeuvre", by M. P. J. Dubreuil, Lieutenant de Vaisseau, French Navy, and commandant of the training ship attached to the Naval School at Brest; Paris, 1835. The author states that it is a method, not the method, as he expresses regret that a more uniform method of belaying the gear was not used in the French Navy. However, the book contains the report of a board of officers appointed by the Minister of Marine to determine whether the book should be printed (at state expense), and since the board specifically approved the proposed method, it evidently represented what contemporary seamen considered good practice and probably at least resembled what was found in other ships.

Dubreuil does not usually state how the gear belayed. He gives the position where the "retour" (hauling part) came inboard or down from aloft. He gives no diagrams but states that he enumerates the gear belaying at the side, starting at the foremost one near the cathead and then proceeding aft in order.

The gear coming in from the head booms (which belays at the pinrail inside the bows), and that which is belayed at fife rails at the mast is listed by him as beginning at the ship's center line and working outward. It will be noted that the topsail sheets come near the end of the list of gear belaying at the masts, and that there are a few ropes beyond.

If the fife rail had a cross-piece with pins extending across the topsail sheet bitts, his system of enumeration would have been meaningless. Therefore, I believe that the type of fife rail Dubreuil had in mind is the one illustrated. This design was often used in contemporary men-of-war.

Dubreuil began with the athwartship fife rail, at the pin adjacent to the center line, and enumerated outboard until he got to the fore-and-aft fife rail. This rail would be parallel to the center line, as shown in the drawing. Here he starts aft and goes forward until the topsail sheet bitt is reached. After this he returns to the athwartship rail and listed the remaining pins from in out.

Since the topsail sheet bitts had to be vertically under the quarter blocks on the lower yard, they could be only about six feet apart. Consequently, there was not much room for belaying ropes on the athwartship fife rails, and the fore-and-after ones had to be very long. This was different from what obtained in contemporary U.S. Navy vessels, where the fore-and-aft rails were comparatively short (six or seven feet), and the athwartship rails were very long.

I have used the following symbols:

P - port S - starboard P or S - indicates that Dubreuil does not specify the side.

L - the rope is rove through a leading block before belaying on deck.

X - the rope is rove through a leading block on the shrouds.

When a group of ropes is enclosed by a bracket and followed by L or X, it means that a single multiple-sheave leading block on deck or on a shroud is common to the group. Where a parenthetical or explanatory remark has been underscored, it is Dubreuil's, otherwise mine.

Gear leading in from the Head Booms through fairleads in bulwarks and belaying at pin-rail within bows:-

1 Fore bowline P & S
2 Fore top bowline P & S
3 Fore topgallant bowline P & S
4 Jib downhaul [redacted] S
5 Jib brails P & S
6 Fore topmast staysail downhaul P
7 Flying jib downhaul P

(4P and 6 & 7S are apparently unused. Perhaps 6P belayed on 4P and 7P on 6P with 6S vacant).

8 Fore tacks P & S (kevels inside bows)

Gear Belaying at Foremast:-

9 Trusses P & S
10 Inner fore topsail buntline P & S, L
11 Outer ditto P & S, L
12 Inner fore topsail leechline P & S, L
13 Outer ditto P & S, L

14 Inner fore buntline] P & S, L
15 Outer ditto]

16 Inner fore leechline] P & S, L
17 Outer ditto]

18 Fore topsail clewline P & S, L
19 Preventer main brace P & S, L
19 has for each side two hauling and no standing parts; consequently there is a double leading-block on each side of the mast. Both hauling parts of one brace might have belayed on the same pin.

20 Fore topmast studdingsail halyards P & S, L
21 Outer lower studdingsail halyards P & S, L
22 Inner ditto P & S, L
23 Fore topgallant studdingsail boom tricing line P & S (often belayed in top)
24 Fore topmast ditto P & S

25 Fore topsail bunt-whip (often belayed in top)] 1 P and the other S
Fore bunt-whip]

26 Fore topsail sheets (Bitt)

27 [Fore spilling lines (fausses cargues) Probably two per side ordinarily
28 [not rove except during heavy weather. Not used on mainsail as it came in much earlier.

Belaying at Side between Cathead and Fore Chains:-

29 Fore topmast staysail sheet]
30 Jib sheet] P & S. Lead through sheaves in the side and belay on cleats inside the bulwarks.
31 Flying jib sheet]

Gear Belaying at Pinrail abreast the Fore Rigging:-

32 Fore clewgarnets P & S, L X
Sometimes (if not more frequently) belayed at mast. This kept it away from the guns. Moreover, if belayed at pinrail, the distance from its leading-block on shroud to the quarter block on yard varied considerably as the yards were braced and the clewgarnets consequently required attention if the sail were hauled up. If led through a leading-block on deck that was vertically under the quarter block (when yard was square) the distance between the two blocks remained nearly constant, regardless of the orientation of the yard.

33 Fore topsail reef-tackle P & S, L*

34 Preventer ditto (foux palanquin) P & S, L X
This was like the reef-tackle except that the pendant had a hook in its lower end and there was a reef-tackle cringle below <u>each</u> reef-band (and not merely below the close-reef-band). In reefing the pendant was hooked, successively, into each of these cringles. I have never heard of this tackle being used except in French ships (and it was not always used in them), although it was said to make the passing of the reef earings much easier. Lescallier "Traite du Greement", 1791, says that the bight of the ordinary reef-tackle pendant was seized to the cringle of all reefs above the close one preparatory to taking the reef. I should think that the leech would have had to be hauled taut along the yard by the leechline <u>before</u> the ordinary reef-tackle was hauled out to make such hooking or seizing possible.

35 Fore topgallant sheet] P & S, L X
36 Ditto clewline*]

37 Ditto buntline (one only, bending to a bridle on foot of sail) P or S, L X

38 Main topgallant bowline P & S, L X] Better at mast in man-of-war
39 Main top bowline* P & S, L]

Dubreuil gives no leading-block on shroud for items marked with an * but I think this is an oversight.

<u>Items 40 to 43 Belay Abreast Backstays</u>:-

40 Jib halyards S; fore topmast staysail halyard P (both L)
41 Flying jib halyards P L
42 Fore topsail halyards P & S, L

43 Fore topgallant halyards] 1 P and 1 S, both L
Fore royal halyards]

Gear belaying at Side from the Fore Chains to Gangway:-

44 Main tack P & S (<u>kevel</u>)
45 Fore sheet P & S (<u>kevel</u>)
46 Fore topmast studdingsail tack P & S

(46) Fore topmast studdingsail boom brace] P & S
47 Lower studdingsail sheet]

<u>All these came inboard through sheaves in the side. 46 came in through a two-sheave block in the side</u> and the boom brace and tack in all probability belayed on the same cleat because then one man could tend both, when yards were braced forward. If the

boom brace had been double (leading through a block on end of boom) this could not have been done. There was no main topmast studdingsail boom brace as the sail came in early.

Note:- The lower studdingsail was set flying and except for a tricing line, had no gear other than enumerated. As this had no stress in it except when the sail was being set or taken in, it could be hitched anywhere merely to keep it from flying adrift. The practice of setting the lower studdingsail flying was more common in French ships (even large ones) than in American or British, but the French also used a swinging boom.

Note:- The remarks upon the gear at the foremast and fore pinrail will apply also to identical gear at the main and mizzen masts unless otherwise noted.

Gear Belaying at Mainmast:-

47a Truss P & S
48 Spanker throat brail P & S, L
This is not a mistake; in French ships they often led down the mizzen stay and belayed there.
49 Main topsail inner buntline
50 Ditto outer
51 Main topsail inner leechline
52 Ditto outer

53 Main inner buntline] I think these should be leechlines
54 Ditto outer]

55 Main topsail clewline
56 Mizzen royal brace P & S

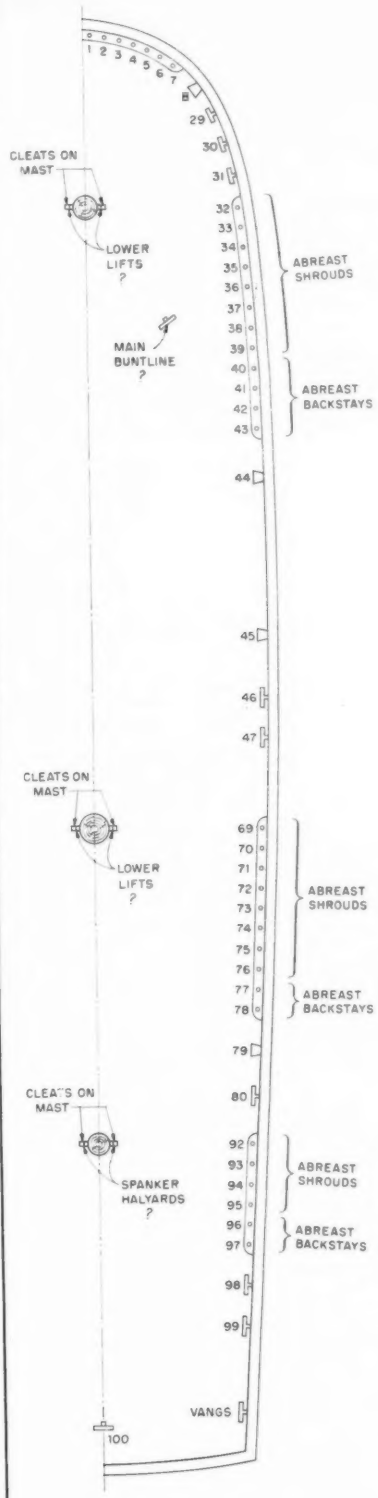
57 Mizzen topgallant brace P & S] Dubreuil gives no leading blocks, but
58 Mizzen topgallant bowline P & S] they were often used

59 Mizzen topsail brace P & S, L
60 Mizzen top bowline P & S, L
61 Crossjack brace P & S, L
62 Main ~~topgallant~~ topmast studdingsail halyards
63 Main topgallant studdingsail boom tricing line
64 Main topmast ditto
65 Main topsail and main bunt-whips
66 Main topsail sheets
67 Fore topsail brace P & S, L
68 Fore brace P & S, L

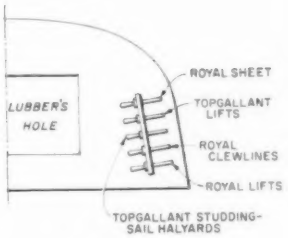
Gear Belaying at Main Pinrail:-

69 Fore royal brace P & S]
70 Fore topgallant brace P & S, L
71 Main clewgarnet Abreast shrouds
72 Main topsail reef-tackle
73 Ditto preventer reef-tackle
74 Main topgallant sheet
75 Ditto clewline
76 Ditto buntline]

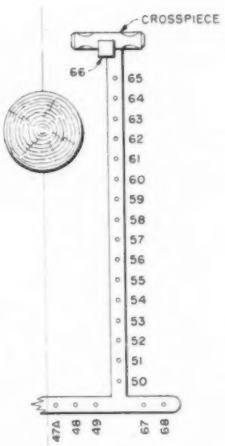
77 Main topsail halyards] Abreast backstays
78 Main topgallant and royal halyards]



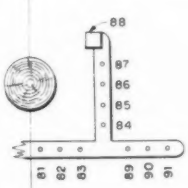
FORE FIFE RAIL



ONE METHOD OF BELAYING GEAR IN TOPS



MAIN FIFE RAIL



MIZZEN FIFE RAIL

SYMBOLS

THE BELAYING OF GEAR IN A FRENCH MAN-OF-WAR OF c.1835

BY D. L. DENNIS

NOT TO SCALE

Gear Belaying at Side between Main Chains and Horseblock:-

79 Main sheet P & S] Came inboard through sheaves in the side.
80 Spanker boom guy]

Gear Belaying at Mizzen Mast:-

81 Spanker peak brail P & S, L
82 Spanker middle brail P & S, L
83 Spanker foot brail P & S
84 Mizzen topsail reef-tackle
85 Mizzen topsail buntline L S & L P (1 S and 1 P)
86 Mizzen topsail clewlines
87 Mizzen topsail bunt whip
88 Mizzen topsail sheets
89 Spanker topping lifts P & S
90 Spanker tack tackle
91 Main topsail brace P & S, L

Gear Belaying at Mizzen Pinrail:-

92 Main royal brace]
93 Main topgallant brace] Abreast shrouds
94 Mizzen topgallant sheet]
95 Ditto clewline]

96 Mizzen topsail halyards

97 Mizzen topgallant halyards
Mizzen royal halyards

Gear Belaying Between Mizzen Chains and Taffrail:-

98 Main brace P & S] Sheave in the side
99 Main topmast studdingsail tack P & S]

100 Spanker sheet (cleat on deck)

Gear Belaying in Tops:-

Topgallant and royal lifts
Royal sheets
Topgallant studdingsail gear

Omissions and Errors:-

Dubreuil's list contains, unfortunately, a number of omissions. The practice of "canting the spritsail yard" was then followed in the French as well as other navies, and this demanded running spritsail braces. According to Costé, a contemporary writer, these led down along the forward fore shroud and belayed at the side.

He seems to only consider a standing jib stay, but hoisting jib stays were common. The jib stay purchase fall would belay (as usually fitted in the French Navy) at the mast or pinrail, on opposite side to jib halyards; the outhaul at pinrail within bows.

The omission of topsail lifts and jeers is not an error. The former were standing and were stopped to an eye bolt (with thimble) in the chains; jeers had long

since vanished from French ships. The omission of lower lifts is an error; Dubreuil elsewhere mentions that they belayed at the mast - possibly on cleats on the mast. The contemporary Coste belays them abreast the first shroud at the side.

Topmast and (usually) topgallant breast backstays were commonly used and belayed at pinrails under the shrouds.

The main bowline (only one which was shifted from one leech to the other) would preferably belay adjacent to the main top bowline.

I think what Dubreuil gives as main buntlines (53 & 54) should be main leech-lines. In French ships at the time the main buntlines still commonly led forward and belayed at the foremast. In the present case perhaps they were belayed on cleats on the deck abaft the foremast. (Cleats on deck at an earlier period were much used in French ships). If so, they must not interfere with the main staysail.

Possibly, the spanker gaff may have been standing, but I think the omission of throat and peak halyards is an error. They may have belayed to cleats on the mast. The vangs are also omitted.

The short sheet of the topmast studdingsail would have belayed in the top and since Dubreuil belays the royal sheets there, he would probably have also belayed the (omitted) royal clewlines in the top. Other French writers, more or less contemporary, belay both on deck.

It will be noted that no provision is made for staysail gear. I do not think this is an unintentional omission; staysails were not in favor at that time in most navies and, except lower storm ones, Dubreuil nowhere mentions them. Costé (1837) said they were not used in the French Navy.

The question naturally presents itself whether in a man-of-war of another country, the gear would have been belayed in a similar manner. Based solely upon the almost complete identity in the rigging of ships of various nations in 1840 and upon the fact that nautical fashion tended to be world-wide in scope, I suspect it would have been. Merchant ships would have differed from men-of-war for the following reasons:-

(A) In a man-of-war, it was desirable to avoid belaying gear likely to be used in action (brails of spanker and courses, braces and bowlines of courses and topsails, etc.) at the side where sail trimmers and gun crews would have been in each other's way. Of course, no such necessity existed in a merchant ship.

(B) In a merchant ship, the braces of all the yards on one mast (as all the starboard head braces) were, if possible, belayed at two groups of adjacent pins and the bowlines at another. In preparing to about ship a turn could be taken with the group around one pin and all in the group could then be let go instantly by one man when the yards were hauled. Dubreuil has done this, although it was not so necessary in a man-of-war with its plethora of hands.

(C) Having no men stationed in the tops, a merchant ship belayed no gear there.

(D) For reasons of economy, everything possible was done in a merchant ship to simplify the gear. The spritsail lifts and braces - if there <u>were</u> any spritsail yard - and the topgallant and royal lifts were likely to be standing, there would be no preventer braces, probably no breast backstays nor bunt-whips, perhaps no boom tricing lines. On the other hand, there might be some gear lacking in a man-of-war - a gab-rope on jib and reef-tackles on courses for instance. Charles G. Davis in his book on the ship "SEA WITCH" (1846) gives a method quite different from Dubreuil's; Mr. Davis undoubtedly knew men who had been at sea at that time and may have had contemporary authority for his diagram. The fact, however, that no provision is made for studdingsail gear and that the method is identical with what was used fifty years later, makes one wonder if Mr. Davis had not merely shown what existed when he himself was at sea. To the extent that they mention where the gear was belayed, Dutch books of about 1840 indicate a system in merchant ships such as Dubreuil's. Topsail clewlines and reef-tackles, and lower buntlines are mentioned as belayed at the masts.

The gear that belayed in the tops sometimes belayed on cleats on the topmast shrouds or the masthead or on the plank of the top, but sometimes there was a pinrail fastened on edge to the plank of the top with pins stuck through it horizontally. This was parallel with and abreast the topmast shrouds and somewhat inside them. I think the gear would have belayed from forward aft thus:

Royal sheet
Topgallant lifts
Ditto studdingsail halyards
Royal clewlines
Royal lifts

Also the short sheet of the topmast studdingsail and the sheet, tack and downhaul of the topgallant studdingsail belayed in the top. Sometimes these led in before the topmast shrouds (but abaft the lower lift) but sometimes the topgallant tack rove through a leading-block strapped to the futtock plate of the after shroud. Nares ("Seamanship", 1862) says the topgallant studdingsail sheet hitched to the lower yard slings above the top and these ropes had to belay some distance from the top rim, as it was necessary for a group to hang on to them while they were being belayed.

REMARKS: I have seen the statement that a seaman in a strange ship, in the darkest night could unhesitatingly find any rope, so uniform was the position in which they were belayed. With respect to this I shall say:- Harold A. Underhill in his "Masting and Rigging" gives a diagram showing where the gear belayed; Charles G. Davis in his various books gives similar data. I do not doubt that Mr. Underhill obtained his information, note-book and pencil in hand, from the actual ship, and I think no one will question Mr. Davis' competency. A comparison of the two will show, however, that the seaman whose experience had been obtained in Mr. Davis' ships would have been in for some surprises when he started to let go ropes in a dark night in Mr. Underhill's.

Dubreuil says there was no uniformity and other, more or less contemporary French and Dutch writers belay at the side where another belays at the mast and vice versa. The French writers Romme and Lescallier (both about 1780) each state where the gear belayed; each spoke as though he described universal practice but the one differs from the other and both differ from Missiessy who wrote in 1798.

The following practices were - or might be - observed. In leading rigging, as doing everything else, some men would display more intelligence and care than others. The practice of belaying the braces and bowlines on groups of adjacent pins has already been mentioned.

A rope should never cross another between the leading-block and the point where it was belayed. Preferably, a rope at the side should not belay immediately abreast of its leading-block, as a group of men hung on to the "fore-all" (the part immediately above the leading-block) while another belayed it, and there should be room for both. This was not necessary, however, if belaying stoppers were used. For the same reason, ropes that came inboard through a sheave in the side belayed some distance away. However, since this separation exposed the rope to be cut in action, the distance was much less in a man-of-war than a merchant ship and, therefore, stoppers were used frequently in a man-of-war.

The leading-blocks around the masts were inside the fife rails and were generally swivel-blocks so that the rope would lead fair no matter in what direction it might be led along for manning. Of course, they all led under the fife rails from the block.

A rope should never be led so that it prevented something else from functioning. Even the old seamanship books sometimes sinned in this respect. Thus Steel, "Masting and Rigging", 1794, says that the fore topgallant braces, after going through blocks on the afterhorns of the fore lower trestle trees, belayed on each side of the belfry. It is evident that both the main and the main topmast staysails would have been so

confined between the port and starboard brace that they could not have been oriented on either tack. (Nevertheless, I believe that these braces are so led at present in H. M. S. VICTORY).

When gear is to be manned in rapid succession by the same hands it should belay reasonably near. It was for this reason that the practice of leading forward the main buntlines was discontinued - the hands that had manned the clewgarnet had to jump forward to get to the buntlines.

In its descent from aloft the fewer angles a rope passed through, the less resistance and wear. If the fore topgallant braces, for instance, went down the main topmast backstays, they had a straight lead; if they belayed under the shrouds they passed through a fairlead at the lower masthead where they made an angle equal to that made by the mast and the shroud. Also they should keep clear of each other, of the standing rigging and everything else. In a general way, the farther aloft the rope originated, the farther aft it belayed. The same is true for the gear leading in from the headbooms - the farther forward it came from, the farther out from the center line it belayed.

The gear should be arranged so that when led along and manned simultaneously, the several groups manning them should not be in each other's way. The peak and throat halyards were on opposite sides and it was for this reason that the French led the throat brail (always the strongest manned) down the mizzen stay. The main preventer braces were generally crossed; that is, the starboard brace led to and was belayed to port and the port brace to starboard. This was to keep the gang manning the brace and that manning the main tack on opposite sides of the deck when hauling the after yards.

In a man-of-war when a rope coming in through the side crossed a port, both the sheave in the side and the point where the rope belayed were situated at such a distance from the deck that the use of the gun was in no way impeded.

A book published several years ago suggests that the studdingsail gear was belayed on pins where other gear was already belayed. In my boyhood I thought this might have been done, so I asked several men who had been at sea when all ships carried studdingsails and I was assured it was NOT. Since then my confidence in their assurances has been fortified by discovering that authors with first hand knowledge of studdingsails likewise failed to do so. Even though it was certain that the second rope would be the first cast off, such a practice was objectionable. Usually a rope was not "let go by the run", it was "tended" - that is, the man casting it off, retained a turn around the pin and only paid it out as the opposing ropes required, so that there would be no slack. Whether it is possible to tend one rope over another, I do not know, but if it is, the slipping of the rough and irregular surface of one rope over that of another would cause great wear.

Nevertheless, there were circumstances (some of which have been mentioned) where it was unobjectionable (and perhaps even advantageous) to belay the two ropes on one pin. The sheet and clewline of a sail could always be belayed, one on top of the other, on the same bitt or pin, as these were opposing ropes and if one was tended the other was simultaneously manned; the one last manned was always the first belayed and the one last belayed, the first manned. Again, sometimes the mizzen topgallant brace and bowline were belayed on the same pin. Here one has a comparatively small sail, taken in in comparatively moderate weather; it was not necessary to tend the bowline in taking it in to keep it from shaking. Moreover (if the brace was single as it usually was) it rendered it possible, in bracing in the yards, for one man to tend both ropes.

When a rope was belayed around a single timber head and not about something with

two horns (such as a cleat or pin) which made it possible to take figure-eight turns, it was necessary, after taking several round turns, to stop the rope to its own part. The stop did not have to be strong; friction resisted nearly all the load, but without the stop there would be no friction. A half hitch was never taken as it could not be quickly cast off.

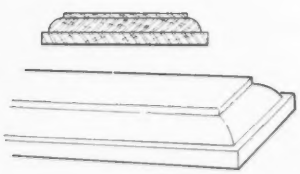
A belaying stopper was a piece of rope with a thimble and hook spliced into one end. In belaying a rope, the hook was hooked to the eye bolt of the leading block, a half hitch was taken around the rope above the leading block and the end was wormed upward several turns about the rope and held taut. Once the stopper was passed, it held the rope so that the men manning it could let go, permitting it to be belayed. They were provided around the masts and in rails, near the tacks and sheets of the courses, near the davits, etc., ready for use.

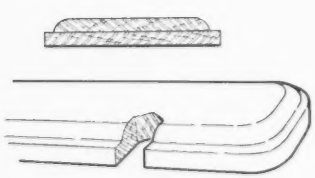
At the lower masthead there were fairleads to keep the gear that originated above clear of the shrouds. These might be thimbles seized to the futtock staff or to the catharpins, or holes in a batten seized to the catharpins or to the shrouds where the futtock shrouds crossed them. There were similar fairleads at the topmast head.

The direction taken by the hauling part of ropes leading through the bitts determined the side for attaching a crosspiece, if there were one. The crosspiece would have been on the forward side if the hauling part led forward; one the afterside if it led aft. An exception was the case of the crosspiece of the topsail sheet bitts when stays set up to it - then it was on the forward side of the bitts. In this case, the topsail sheet led through a leading block on deck. When the fife rails were of the type shown in the accompanying illustration, instead of a crosspiece there was often an iron pin as shown at the foremast. Sometimes instead of a crosspiece extending across both bitts, there was a short crosspiece on each bitt as shown at the mainmast in the drawing.

In the drawing, the pins in the rails at the side are shown continuous, but where a port occurred there would be no pins above it, even though the rail was uninterrupted.

At one time there were tubs or racks in which the topsail sheets and halyards were coiled.





SHIP MODEL BASES

Some model makers are not satisfied with a simple chamfer or rounding on the edges of the bases on their ship model stands. Many other shapes can be obtained on a moulding head, a power tool used by numerous woodworking shops. It is especially good for bases having unusual shapes, rather than the normal rectangle.

Nevertheless, the woodworker who is limited to hand tools can develop many other designs by making the bases of several layers of wood. Each of these can be shaped separately, and then laminated together. Two examples are illustrated here, and others can be made after a little thought.

For more details of model stands, see page 106.

QUESTIONS AND ANSWERS

The purpose of this section is to provide a means of obtaining and exchanging information which is not generally accessible. Correspondents who send their answers directly to the inquirer are urged to send copies to the Journal, so that the information can be made available to others.

It is hardly necessary to say that historical research is an unceasing quest, and only through open debate and free discussion can the elusive fact be untangled from the persistent legend.

QUESTIONS:

(10-3-1) Ship HENRY B. HYDE (1884): Are plans of the HENRY B. HYDE available, complete enough for building a model?

-J. J. Flynn

(10-3-2) Ladders on 17th Century ships: Several modern reconstructions of 17th Century vessels have cleats (ladder rungs) on the forward bulkhead (forward cubbridge head) to give access to the high forecastle deck from the main deck. This is a space saving method which does not take up the deck room required by normal ladders, such as the ones that are used to reach the poop. I imagine that it is a difficult feat to climb up these cleats during a heavy sea, and I wonder how prevalent they were on early vessels?

-Roy Rogers

(10-3-3) Models made by Capt. H. Percy Ashley: The late Capt. Ashley was well known for his highly detailed models of native American craft. Are any of the drawings he used in making these models still in existence?

-Roy Rogers

ANSWERS:

(10-2-3) Books on silver soldering: For books on silver soldering and other jewelers' processes, try William Dixon, Inc., 32 East Kinney St., Newark, N. J. Among others they list:

"Silverwork and Jewelry" by Wilson - $3.00
"Art Metalwork with Inexpensive Equipment" by Payne - $3.00
"Simple Soldering, Hard and Soft" by Thacter - 75¢
"Simple Soldering and Brazing" - $1.00 (I believe this is out of print.)

In any case, their catalog is a must for serious metal workers. I believe the price if 50¢ or $1.00.

-John Shedd

(10-2-5) American brass and bronze guns cast before 1820: The information as to which pre-Revolutionary "furnaces" (as they were then called) or foundries could have used Lake Superior float copper might apply to several or equally well to none. The thing is this: from all authorities it appears that the British were not at all interested in having the colonists manufacture arms, and though Lossing says that there were coins cut as early as 1648 in Lynn, Mass., the making of guns was frowned on. Additional foundries were those of Henry Leonard and of Orr at Bridgewater, and the Hope furnace which was established in Rhode Island in 1735. A few guns were cast

at Germann Forge in Virginia in 1713, but these appear to have been of iron. Actually most of the pieces which were cast seem to have been of iron, and the American artillery train in the beginning had only four or six (depending on which account you read) brass guns.

The Spanish guns which are at Annapolis and elsewhere, often have engraved on them "Cobre de America" or "de las Americas", and if you can show a Spanish connection with Lake Superior, it may work. More likely, though, they got it by melting down Indian artifacts.

The only founder who seems to me to be a sure bet for having cast cannon of brass (or bronze) at the time of the Revolution, would be Paul Revere, and perhaps the Frenchman, Ansart, working with Orr's Foundry; perhaps there are another one or two.

The belief that mission bells and bronze cannon had no connection is completely wrong, since the metal alloy used for both is the same; and there are many recorded instances of towns melting down their church bells to make guns in time of danger and remelting them later for casting into bells again!

There was an "Iron Lobby" which kept the army from having field guns made of brass, even when it was pretty well decided that it made for lighter and stronger guns. All this didn't take place, however, until around the 1820s and though guns were made in Pittsburgh for use on the Lakes in 1812, they seem to have all been of iron.

The "Quasi-War Papers", published by the Navy, and the later "Barbary Wars" books indicate that there was no one in the country who cast brass ordnance (wanted for tribute) in 1803 or thereabouts, and the Secretary of the Navy wrote that he would have Mr. Foxall try to do it. I believe he was then in Philadelphia, though he moved to Georgetown (D.C.) shortly afterward. There is some rather scanty evidence that there was a foundry in Canada which was in operation both under the French and the English for the casting of iron guns, but that there were few bronze pieces would seem to be borne out by the joy at which the French received the news that Braddock's brass had been captured and ordered sent to Quebec for a special train of artillery.

-Cary S. Tucker

(10-2-8) Bark SHENANDOAH (1890): Her model is in Bath, Maine, City Hall, in the room at the rear of the building known as the Kennebec Valley Marine Museum; this consists mainly of Sewall and Houghton models. Actually it is the builder's half model of the RAPPAHANNOCK, but this served for the SHENANDOAH and ROANOKE, which were lengthened out. The SUSQUEHANNA was built from the PARTHIA'S mold. This RAPPAHANNOCK model is a whopping big hunk of timber, and as far as I know, nobody has taken the lines off. You might inquire, however, of H. I. Chapelle, who is the Curator of the Division of Transportation at the U. S. National Museum (Smithsonian Institution) in Washington. Her lines might be there among the many that were taken off by the WPA during the Depression.

I have two sail plans of the vessel. One from the Union Iron Works of San Francisco is probably a tracing of the one carried aboard the ship; another is reproduced from one found among the Edward S. Clark material at the Peabody Museum. This was an original sail plan on cloth, probably done in Bath when she was new. There are small differences in dimensions between the two plans. Then I have a very good set of spar dimensions, which include the distances between masts and other pertinent figures. I got this from Carville Douglas of Bath, who had obtained it from the rigger Frank Palmer. This spar plan seems to agree with the Union Iron Works' plan.

- Andrew J. Nesdall

NOTES AND COMMENTS

RIGGING OF SPANKER BOOM AND GAFF.

I have noticed that on a lot of ship models the builders have rigged the gaffs with throat and peak halyards, while the mizzenmasts were iron-banded. It would be nearly impossible, however, to hoist a gaff over these iron bands. This error is due, no doubt, to the incorrect plans used in building the models. All the ships I served on had fixed gaffs, from the old sloop-of-war SARATOGA, to the four-masted barks JOHN ENA and the ERSKINE M. PHELPS - "Cape Horners" with steel hulls, masts and spars, and chain and wire rigging.

On a ship, unless it has a spencer (or trysail) mast, the gaff is fixed to the mizzenmast about where the futtock shroud band is located, so that it can swing. It is held at an angle by two heavy pendants, wire or heavily tarred rope, leading from a point between the trestle trees and the cap of the mizzen. The pendants are secured to the gaff with shackles, or are passed around it and butted against shoulders cut in the spar; the lower pendant being about half-way out on the gaff, with the upper pendant near the end.

Near the end of the spanker boom is a sheave. A little beyond this, a line is made fast around the boom, then rove through a block at the clew cringle of the sail and led through the sheave, and then inboard to another sheave in the boom, about half-way in. This line is known as the foot outhaul. There is also a foot inhaul which acts as a clewline. The spanker lift, port and starboard, is made fast to the boom, usually about three-quarters of the way out. Heavily tarred hemp was used on the older ships, while wire was fitted on later vessels. The lift leads up to a single block under the trestle trees and down along the mast to a two-fold block, with the hauling end led to a cleat on the mast.

The gaff has a head outhaul which is rigged about the same way, except that some ships had a block attached to the side of the spar, instead of a sheave. This head outhaul reeves through the block (or sheave) and leads inboard to a block at the heel of the gaff, and from there down to the deck, to a pin in the fife rail. In addition, there is a downhaul or inhaul line. On each side of the gaff, near the end, there are small blocks leading from short pendants, rove as watch tackles. These are known as vangs. The hauling ends are secured at the rail. (On large schooners, where the gaffs are not fixed, vangs are not used.)

The spanker sail is bent to a jackstay which runs up the after side of the mast, and is secured to it with rope yarn stops, the same way other sails are made fast to the yards.

On each side of the mizzenmast are four or five blocks - called brail blocks - evenly spaced between the trestle trees and the boom. Brail lines are rove through these blocks to the leech of the spanker. When the spanker is taken in, the head inhaul brings the upper part of the sail to the mast. The foot inhaul serves the same purpose for the lower position, while the brail lines gather the rest of the canvas snugly against the mast. Sea gaskets are passed around the sail and everything secured.

Now to show how the spanker would be handled. Let us imagine we are on a ship - let us say in the roaring forties - have been running on the gaining tack, sharp up, reduced sail, and a heavy sea. We want to go about, but the sea will not allow our

head to come up into the wind. So we have to wear ship. The spanker must come in, and the following orders are issued: ease off the weather vang and the boom sheet; haul down the head; slack away the foot outhaul; haul away on the foot inhaul; haul away on the lee brails; take in the slack of the weather brails and secure the sail to the mast with sea gaskets.

Now we have gone around enough to have the wind on our opposite side, so we can set the spanker again. We then ease off the weather vang and the boom sheet, let go the brails, haul away on the foot outhaul, and then the head outhaul. When the lines are taut, take another swig on the foot outhaul, trim the sheet and the weather vang, and cuss the weather and everything in general!

I have before me a plan of a ship's rigging, which shows the boom lift leading up to the mizzen (topgallant) crosstrees, and cutting across the gaff about halfway out, which would confine the gaff. (The plan does not show where the lift leads from this position in the crosstrees.) The vangs, port and starboard, are secured to this boom lift; why I cannot say, and can see no reason for it. (Unless the wind is "up and down the backstay", which is a serious situation.) The plans also show the gaff rigged with throat and peak halyards, no spencer masts, and the mizzenmast is iron-banded, as most old timers were. And models built from these drawings will compound the errors by having the gaff hoisted, although sails are omitted.

This is what some plans are like, and it is an example of what I would like to see corrected.

-J. S. Kamp

THE CONSTITUTION'S MASTS

From "The Bangor Historical Magazine", Vol. VI, No. 10, p. 242: "Her three masts were cut in the town of Malta, now Windsor, on the north side of the present Augusta road, between Cooper's Mills and Bryant's Corner, and within half a mile of the Corner. Thomas Cooper of Newcastle, and one Gray Whitfield, cut the trees, swamped a road to Puddle Dock at Alna, in the winter of 1796-97, and hauled them into the Sheepscot, and in the spring took them to Wiscasset, where the government agents yoked them at both ends with pieces of white oak 5 in. x 8 in., slipped through mortices in the trees, and towed them to Boston."

Her mainmast was replaced in a few years, as Drake's "Historic Fields and Mansions of Middlesex", p. 47, says that when she sailed for Tripoli in 1803, her mainmast was a "made" mast of twenty-eight pieces, and that she was the first vessel in our navy to carry a mast of this type.

Knox, "Personnel and Ships Data", pp. 70-71, gives the length of her 1803 masts as: main, 105 ft. 6 in.; fore 96 ft.; mizzen, 90 ft., but gives no diameters.

Windsor's "Memorial History of Boston", Vol. III, p. 332, says that Isaac Harris who had been an apprentice in the mast yard when the vessel was built, put new masts in her "during the War of 1812". Also that Harris, who constructed the first masting shears used at the Charlestown Navy Yard, was the first in this country to make ships' masts in sections (i.e. "made masts"). This seems to indicate that he installed the 1803 mainmast. She was in Boston for repairs in the fall of 1801, and was in ordinary there until 1803, but sailed in July of that year. On her return, she was placed out of commission in November, 1807, and was not re-commissioned until the War of 1812.

Davis' "Ship Model Builder's Assistant", p. 254, quoting from the 1815 letter book of Commander Thomas Macdonough of the CONSTITUTION, gives her mainmast as 104 ft. x 34 in. diameter; fore, 94 ft. x 31 in. diameter; and mizzen 81 ft x 23 in. diameter, which shows that the new masts were fitted during the War of 1812.

The CONSTITUTION came home for repairs after the fight with the JAVA, due, as Bainbridge wrote, to the damage received in the action and the "decayed" state of the ship, arriving at Boston on February 18, 1813. It was at this time that her new masts were fitted, as Stewart had her in 1815.

Chapelle's "History of the American Sailing Navy", p. 484, gives the same lengths for 1815, but differs in the diameters, giving the main as 32 in., fore 31 in. and mizzen 21½ in.

A spar and rigging plan dated November, 1906, at the Navy Yard, Boston, gives another set of masts: main, 104 ft. x 32 in. diameter; fore, 98 ft. x 29½ in. diameter, and mizzen, 86 ft. x 21½ in. diameter.

In July, 1875, she was hauled up for repairs at the Philadelphia Navy Yard, but as Congress had appropriated no funds, it was proposed to break her up. This was not done, of course, and she was repaired. In passing, it may be noted that the old ship was repaired extensively in 1813-14, rebuilt in 1833, 1877, 1906 and 1927-30.

-Winthrop Pratt, Jr.

BOOK REVIEWS

THE ANCIENT MARINERS: Seafarers and Sea Fighters of the Mediterranean in Ancient Times - by Lionel Casson. Illustrations and four maps. xxii + 286 pp. New York: The Macmillan Co. $5.95.

This is the story of man's mastery of the sea, from the early days of Egypt to the glorious middle era of the Byzantine Empire. It is not simply a re-telling of the classic wars of the period, but an amazing variety of lesser known subjects. Here are the everyday maritime episodes and their influence on the foundling nations of Western Civilization.

In the foreword Professor Casson says that the book is directed at the general reader. Do not be misled by this. He is recognized as a leading authority, and, as you will discover after a few pages, the possessor of a very lucid style. In addition to four maps, he provides many illustrations from contemporary paintings, models, relief carvings and mosaics.

Professor Casson had a fellowship which permitted him to travel and continue his archeological research. Much of his text was gleaned from contemporary sources. There are events taken from the original Greek navy accounts still in existence at the Athens navy yard. He quotes from letters of Roman sailors to their families. But it is impossible to list here the numerous items he weaves together in this description of

seafaring in the ancient world. He ranges from the prehistoric reed boats to the big grain carriers of the declining Roman Empire. A scribe in the days of the Pharaoh Snefru records "the bringing of forty ships filled with cedar logs." Little timber grew in Egypt and this trade grew into one of the mainstays of commerce. Along with this, there was copper from Cyprus, incense from the east coast of Africa, plus trade with Mesopotamia and India through the Red Sea.

In addition to these enterprises, Professor Casson mentions others of a less peaceful type. As early as 2550 B.C., the Egyptian army was using ships to transport troops. Thutmose III used the navy to blockade enemy coasts. After Rome became a sea power in spite of herself, she came to depend on food imported from the colonies. Export-import companies, as we know them today, were set up with the connivance of various governors to corner and control the grain output of Egypt. Popular opinion to the contrary, Rome did not use slaves in her galleys. Slaves were bought, if necessary to bolster the force, but were made free men upon entering the service.

Many other aspects of maritime history are touched on:- how the great trading companies were organized and financed; the battle tactics of huge fleets; developments in shipbuilding, the manning of these vessels; the ever present dangers of piracy; and the hazards of navigation.

Professor Casson has written a book that is thorough enough to engage the attention of those who have delved into Mediterranean history, while it is not so weighted down with statistics as to be boring to the casual reader.

-Max L. O'Starr

GIVE ME A SHIP TO SAIL - by Alan Villiers. Illustrated with photographs, and a chart. 312 pp. New York: Charles Scribner's Sons. $4.95.

Mr. Villiers is accepted by many as one of the few men still around who know how to handle deep water sailing ships and - more important to some - are qualified to write about them. From the numerous projects that he has been engaged in, it appears certain that his abilities have not gone unnoticed. In writing of these, however, he has chosen a style that is apparently aimed to please that large segment of the public which, while it has fallen in love with ships and the sea, has no real understanding of them. If these stories of his jaunts about the world are easy to swallow, it is not due solely to the author's erudition, but also because there is little solid matter to chew on.

The first half of the book is devoted to accounts of the filming of "Moby Dick" and "John Paul Jones"; fishing in a Portuguese village; a trip to the Grand Banks (presumably the author had some material left over from an earlier book); the "race" of the school ships in 1956; and a trip to the Maldive Islands (in the Indian Ocean) to see the "last brig left in the world". (The chapter on the brig ends lamely with the remarks that she would never sail again.) In describing the natives of the Islands, a couple of Mr. Villiers' stories sound little different from the tales told by travelers of Hakluyt's day. Among the things he saw were singing stevedores vying "with one another to see who could carry not one but two 200 pound sacks of rice at the fastest pace." Nearly all of this material has appeared in magazines, in one form or another.

The second portion of the book takes up in some detail the new MAYFLOWER and her voyage to America. It concludes with a short chapter on the loss of the big four-masted bark PAMIR in 1957, with a few thoughts on the future of the sailing ships.

It is extremely hard to learn exactly what Mr. Villiers thought of the MAYFLOWER. He obviously wants to be disassociated from the design, and carefully points out that he had nothing to do with it. Neither the masts or the hemp rigging suited him at all. He complains that they did not have the rigidity of the steel masts and wire rigging of the big Cape Horners - surely a foolish and unfair comparison.

What did Mr. Villiers expect of this little bark from the 17th Century? He had leaped at the chance to serve as Captain, and then seemed startled to discover that she did not resemble his steel grain ships. While anyone would have viewed the voyage with some misgivings, Mr. Villiers might have been less down-hearted if he had had more first hand knowledge of wooden vessels. "The only wooden sailor I had been in before" he writes, "was the schooner HAWK, and she was a little witch."

On the other hand, he had plenty of other causes for real concern. The replica resembled no other vessel afloat. Although a huge amount of time, skill, and money had gone into her design and construction, no one could predict her sailing qualities with confidence. Mr. Villiers was never given an opportunity to conduct proper sea trials, but had to content himself with one trial run of a few hours. There was real danger that she might be dismasted before the crew had time to master the intricate rigging. The English Channel was not the ideal place to learn this lesson.

Yet some of the author's comments on this stage are so counter to our normal conceptions that one asks if they are the statements of a responsible shipmaster. When the time came to select the crew (he was given a free hand) he was not troubled over the possibility that able seamen of proven ability might not be available for every post. On the contrary - except for a few positions - "the more boys the better." His grain ships had been worked with a nucleus of six or eight experienced seamen, and the rest boys. "The average age of our usual PARMA crew was seventeen. Oddly enough, it was only the well-manned ships with over-large crews which had gone missing on the Cape Horn run, in our time."

And to his description of his frustrated attempts to get "adequate sailing trials before being committed to the voyage", he adds this surprising explanation: "Then we could have worked out these problems and tested the spars, if necessary to destruction, in a gale of wind." Would any shipowner be willing for his vessel to be tested to destruction, and would any crew be willing to deliberately expose themselves to this violence?

When the MAYFLOWER got underway at last, she was deeply laden. She was drawing 13'-8" aft and 11'-10" forward. The towering poop offered enormous wind resistance, and rolled and pitched so badly in ordinary seas that it was hardly possible for a man to keep his footing. In Villiers' cabin the motion was so violent that it was "a strenuous exercise to stay in it asleep or awake."

Only toward the end of the voyage did Mr. Villiers begin to gain confidence in his unusual craft. Yet a few days after taking his departure, and while the crew was still learning to handle the strange sails and their puzzling gear, she made some nice runs:- April 26th: 154 miles; April 27th: 154 miles; April 28th: 153 miles; April 29th: 150 miles; April 30th: 149 miles. But still the author fretted and despaired of getting across within any decent time.

Although he could never bring himself to the point of approving of the masting and rigging plan, he afterwards became more reconciled to the sailing qualities of the MAYFLOWER. She had not done so badly, after all! "The MAYFLOWER'S daily average (run) was 106 miles, the same as the ship JOSEPH CONRAD on a voyage from Tahiti toward New York in 1936 ...most of the big grain ships averaged about that speed, too, over their round the world voyagings." He adds this gracious admission: "It could

be, too, that I may have underrated the capacity of her apparently slender spars to stay with her." And here it might be well to point out that Mr. Villiers graciously served without pay.

I wonder what this little bark could do under ideal conditions and a trained crew?

-Roy Rogers

AMERICAN SMALL SAILING CRAFT - by Howard I. Chapelle. 363 pp. W. W. Norton & Co. Inc. 1951. Originally Published at $7.50.

This book, although published some eight years ago, seems to have been overlooked by many model builders, perhaps because it was written for small boat builders instead of ship modellers. (It should not be confused with another of the author's books: AMERICAN SAILING CRAFT, which was published by Kennedy Brothers in 1936). It is devoted to small American craft of forty feet or less on deck, and covers a period from the early 17th century to the present time. The 363 pages, including index, includes some 122 plans, a dozen photographs, and eight perspective drawings. Structural details are shown in a great many of the plans, which, although small in size, can be enlarged by photostat to whatever scale the model builder desires. Building models of such small craft permits the use of large scale; the largest, on a 1/2" to the foot scale being only 20", which in turn permits greater detail than is usually possible. The text, too, provides information as to structure, sizes of fastenings, plank, and rigging, together with color notes, etc., not found elsewhere.

Among the types of craft shown, and particularly suitable to small model building, are the scows, shallops, pinks, cats, skiffs, sharpies, Tancook whalers, Moses boats, river boats, dories, and many others not easily found. Even a five inch solid model of a scow-sloop becomes a delightful conversation piece in its bright colors, while one of the Chesapeake Bay skiffs can be real fun if planked and framed to a length of five or six inches.

-Winthrop Pratt, Jr.

AROUND CAPE HORN TO HONOLULU ON THE BARK AMY TURNER, 1880 - by L. Vernon Briggs. Illustrated with photographs and drawings. 186 pp. Boston: Charles E. Lauriat Co., 1926. Originally published at $5.00.

Many worth while books are published, read by a few people, or perhaps by many, and then forgotten. It is my intention to try to rescue a few such books from undeserved oblivion. As the book that is the subject of this review was published in a limited edition of only 550 copies, it is safe to assume that it has never been widely read. Yet it is a well-written and, in many ways, informative record of part of an era of maritime history which has been somewhat neglected by historians: the last half century of American deep-water sail. It sometimes seems that everyone who ever went to sea in a British sailing vessel and was still alive in the 1920's or after has been inspired to publish his reminiscences either in a book or in "Sea Breezes". Those who went to sea in American ships may have been less articulate, or perhaps there is not as much interest in this sort of thing on this side of the Atlantic; whatever the reason, the crop of American seafarers' memoirs is a sparse one.

In the spring of 1880, L. Vernon Briggs, a Boston medical student sixteen years old, was found to be suffering from tuberculosis, and his doctor prescribed a long sea voyage in the hope that the enforced rest, fresh air and change of climate would be beneficial. Arrangements were made for him to go as a passenger to Honolulu in the AMY TURNER. The voyage apparently had the desired effect, as Briggs lived to be 77 years old, and later became prominent as one of the leading psychiatrists in the

country and author of several books on psychiatry, genealogy, and shipbuilding.

This book was written when the author was in his sixties and is based on a journal he kept during the passage, and from which he quotes at some length. About three fourths of the book is devoted to the passage; the rest is about his stay in the Hawaiian Islands. Both parts are of considerable interest. Although he came of a family of shipbuilders and seamen and had a great interest in ships, Briggs' technical knowledge of sailing ships was not extensive. When he is describing the bark or the handling of her it is sometimes hard to figure out what he is talking about. If we can trust his description (which I doubt), the AMY TURNER was most peculiarly rigged. He reports that between the masts she had staysails, the peaks of which extended from the different yards of the main and foremasts; also that she carried a gaff topsail over the mainsail. Aside from such technical errors, he gives a good account of life on a square-rigger as seen from the quarter deck, and of the passage, including a very stormy and difficult rounding of the Horn.

In the latter part of the book, he gives a lot of information about Honolulu and the surrounding country - quite a contrast between the town of 18,000 he visited and the metropolis of eighty years later. The last chapter outlines briefly the subsequent careers of the AMY TURNER, which survived until 1923 and of her captain, Albert W. Newell. The author had a great deal of apparently well-deserved admiration for both. The book also includes about twenty pages of the texts of various chanties as sung by the crew.

On the whole this is a readable and informative book as long as the reader is not looking for information on the handling of a ship.

-Frank W. Thober

THE CUTTY SARK - by C. Nepean Longridge. Illustrated; plans in pocket. xxi + 232 pp. (Two volumes in one.) New York: Edward W. Sweetman Co. $10.00

While there is no end to the number of books on ships and the sea, only a few of these are of any real use to the model builder at his workbench. Two of this small number were written by a British physician, Dr. C. Nepean Longridge, who died several years ago. In his first book, Dr. Longridge told how he made a 1/4" scale exhibition model of the famous tea clipper CUTTY SARK. His other book, which came out in 1955, described the construction of a model of H.M.S. VICTORY. He was a highly skilled craftsman and evidence of his ability can be seen at the Science Museum, where these models are displayed.

Dr. Longridge's book on the CUTTY SARK was originally published in two volumes in 1933. It has been out of print for some years and hard to find. Like the other books that Sweetman has reprinted, this has been printed by offset from the original edition, and includes the folding plans drawn by Harold A. Underhill. The type impression is good and sharp, but a few of the half-tones do not have the clarity of the original. This is a small matter, though, and the publisher has atoned for it by adding a number of photographs of the ship. It is a well made book that should stand up to the abuse of constant use in the shop.

While Dr. Longridge described the construction of the CUTTY SARK in minute detail, this book will aid not only those who want to duplicate his model, but many model makers of other types of craft. Although it is impossible to say who originated certain ways of making model fittings, it can safely be said that Dr. Longridge was the first to publish and popularize some methods in use today. His method of coppering the bottom, to give one example, starting with laying out and cutting of the tiny sheets, to getting the proper color on the finished job, is accepted as standard practice.

This book should be a wonderful incentive to the ambitious and conscientious model maker.

-Roy Rogers

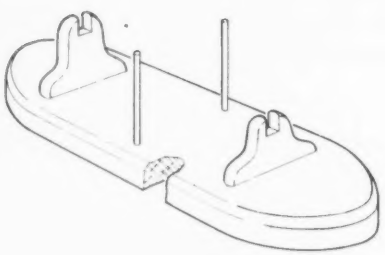
SUGGESTED STANDS FOR SHIP MODELS

BY JOHN J. FLYNN

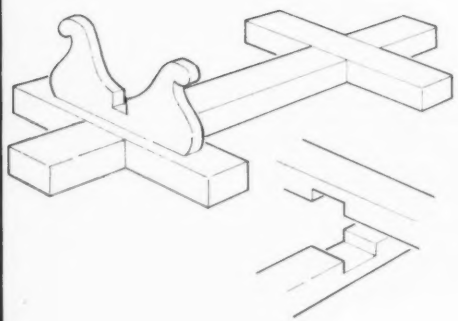
Unfortunately, the lines drawings of a model do not include ideas for a stand, so it is the builder's lot to work out that problem. For some it is no difficulty, but for others it is a real task. Here are a few designs that may be of help. The modeller can also create other types by combining the chocks from one with the base from another.

It is my opinion that a very elaborate stand can distract from the model. An illustration in the catalog of the Rogers Collection shows a ship of the line on the ways, ready for launching. Inside the fenced-in yard are to be seen shop buildings and all of the ship's gear laid out neatly, ready to be placed aboard after the launching. Such a decorative stand can go well with bone models, but I think it is not in keeping with the simplicity of many present day models.

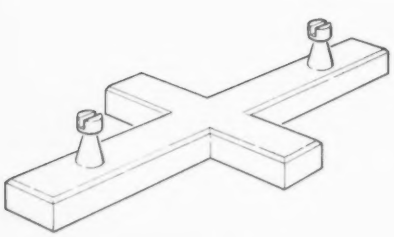
To preserve the history of your model, make a notation on the underside of the base:- name of the vessel, dimensions, builder's name and date, home port, and the name of the modeller and the date when he made the model.



This is a simple design that goes well with small models, such as little open boats. The hull lines can be easily studied. Note that in this example one chock has been made lower to take care of the after drag. This point should be kept in mind when designing a stand or you may find later that your model is not riding level. Since the chocks grip only the keel, shores are necessary to give sufficient side support. 3/4" stock has been found satisfactory for bases, with 3/8" material for chocks. Choose a hardwood that will take a good varnish finish.

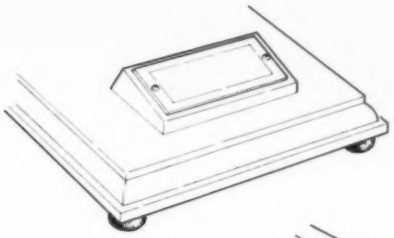


If you cannot obtain suitable wood in large enough sizes, you can make very adequate bases from smaller pieces. The cross members are half-lapped into the center strip. To obtain the inside shape of the chocks, scale off the measurements from the water-lines on the half-breadth plan. Do not attempt to saw out the correct shape right at first, but leave some excess material for adjusting to a good fit.

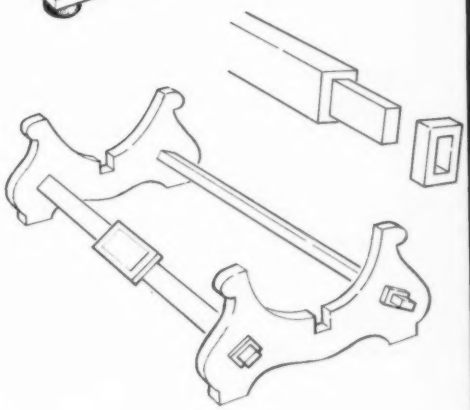


Here is a variation on the one just described. Only one crosspiece is used, and brass pedestals are substituted for the wooden chocks. These pedestals are popular with many because they do not obstruct the hull lines. Two are usually enough, but it is better to use three with large models.

Brass name plates can be mounted on small wooden easels, or blocks, and fastened to the base. Lettering in your choice of styles can be engraved by a jeweler. One of my models has name plates of ivory which are placed on ebony easels; I filled in the lettering with India ink to make it more legible.

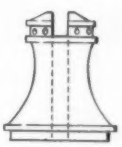


This stand has the chocks connected by two rails. Tenons are formed on the ends of the rails, and pass through slots in the chocks. Wooden collars are slipped over the ends, to give a neat finish, and fastened underneath with brads. (I might as well say here that it is well to line the chocks with felt, and that a small piece of this material on the bottom of the bases will prevent scratched table tops. Rubber-headed tacks can also be used).

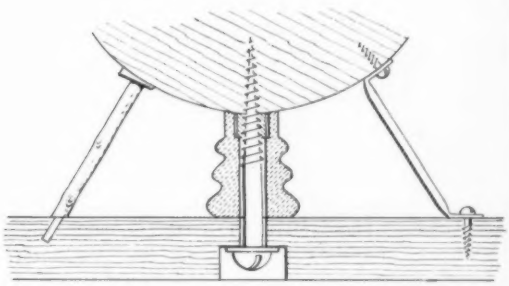


Many model supply dealers carry pedestals in several sizes. The top is slotted to fit the keel, and a hole passes up vertically through the pedestal for a long, slender screw. A heavy block or laminated hull might roll to one side when handled, and these screws could be pulled out. This has caused considerable damage in a number of cases. Therefore, it is advisable to help support the hull with diagonal shores on either side.

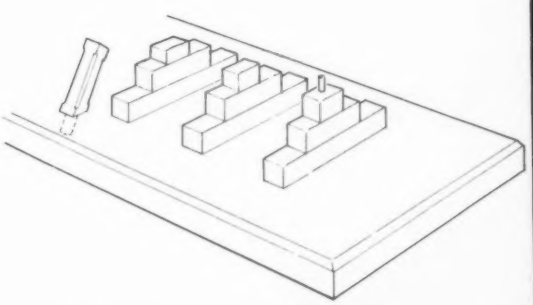
CAPSTAN TYPE PEDESTAL

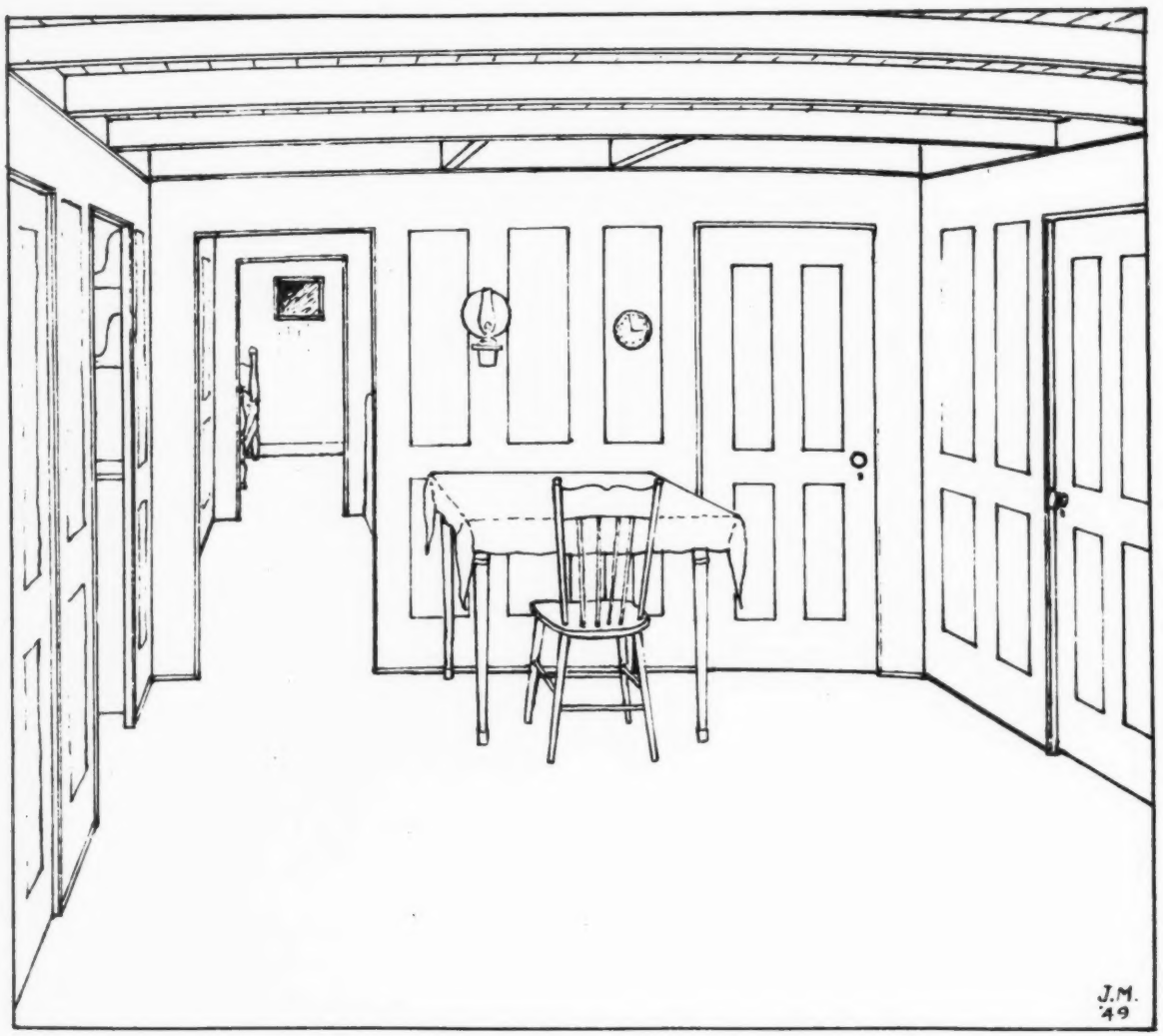


On the right is a shore made from a brass rod. The ends are flattened and drilled for small screws. The shore on the left is cut from a twig, and the bark left on. This is especially suitable for unpainted models, or ones on keel blocks. Cut the shore a trifle short, put a drop of glue on it, and stick in a small wedge to make the hull level. When the glue has dried, remove the hull and secure the wedge with a small brad.



One of the most popular stands is the keel block type, which represents the model in a miniature shipyard. Shores are a big help here and also fit well in the scene. The model can be secured by a couple of long screws going up through the blocks. If you like to handle your model, you can drive small pins into several of the blocks (as shown here) and drill matching holes in the keel. That will insure the model being set down at the proper point.





The after house (or cabin or cabin trunk) - a spacious and elaborate place compared with the forecastle, and looked upon by sailors as a kind of holy of holies. This was the quarters of the master and the other officers.

The forward cabin was used as a dining room for the after guard. The after or main cabin, usually slightly larger, was the Master's sitting room or parlor.

The cabin interior was usually paneled, and either finished in a natural color or painted white. The decks in the main cabin and the Master's bedroom were fitted out with rugs, and the forward cabin deck was covered with linoleum.

-James S. McCullough

A VOYAGE IN THE PURNELL T. WHITE

NEW YORK TO GEORGETOWN IN 1933

BY JAMES S. McCULLOUGH

PART 1

Oct. 18, 1933. The usual crowd of sailing ship men stood around the corner of Coenties Slip and South Street. The shipping master, a short, fat, red faced man about fifty years old, walked up. "I want four men for the PURNELL T. WHITE," he said.

"Where's she going?" asked one of the men.

"Georgetown, S. C. and back."

"What does she pay?"

"Thirty dollars."

"It ain't enough," said the crowd.

"Times are hard and that's all she can afford to pay," replied the shipping master. "Do you want the job?"

"All right," said one. "It's a chance to get off the beach."

"How about you?"

"Oh, I suppose so. There ain't nothing else."

"And you?"

"No, sir, none of those coffins for me."

Well, anyway, the shipping master got four men to agree to ship in her. I being one of them, and the final instructions were, "Be at Swan's (a ship chandler) tomorrow morning with your bags and sign on. You can go aboard with the stores. The vessel is laying at Gates Lumber Yard on East River."

Oct. 19. The crew for the schooner WHITE stood around in front of the ship chandler's store waiting for the shipping master to come along with the ship's articles. He showed up about ten o'clock, all out of breath and his hand full of important looking papers. "All right, boys, come on in here and sign articles. No use to read them to you. You know what they are. Georgetown and pay off north of Hatteras, thirty dollars a month. Here," handing the pen to the nearest man. The man, with an awkward and trembling hand (not from fright but from too much rum), wrote "Andrew Johnson."

"All right, Johnson, where were you born?" asked the shipping master.

"Norway."

"Citizen?"

"Well, I've been here long enough to be one."

"How old are you?"

"Fifty-four."

"You've been fifty-four for the last ten years. How tall are you?"

"Five foot, eight."

"Eye's - blue. Hair? Take off your cap. Well you ain't got much, but it's grey. What's your address?"

"25 South Street."

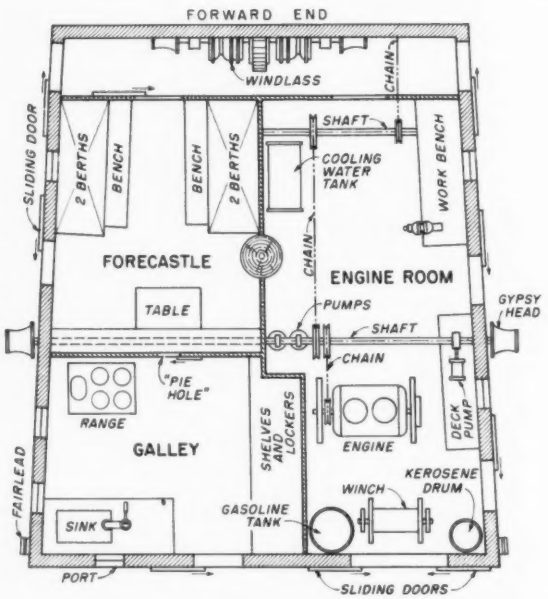
"All right, next man," and so on until we all had signed on. "Now," said the shipping master, "the truck ain't here yet, but put your bags over there with the ship's stores and I'll give you car fare so you can go aboard and get your dinner. The cook and Mate are aboard. Take the subway to 125th Street, transfer to the Hunts Point Local and get off at 149th Street. She's the only schooner at the dock. Here," handing us the money, twenty cents, "and don't forget me when you get back, boys." (He had a speakeasy.) "So long, boys. You'll have a good trip. She's a good vessel and it'll be nice and warm down south."

We boarded the subway at Bowling Green and in due time arrived at 149th Street. From there we had no difficulty in finding the vessel. The WHITE was a wooden four-masted schooner of 688 net tons and hailed from Salisbury, Md. She was built at Sharptown, Md., in 1917, and operated by C. C. Paul & Co. of Baltimore, Md.; a fine looking vessel (for a schooner) with plenty of sheer and more rake to the masts than most. The hull was painted grey outside. The cabin trunk, deck house, rails and inside of bulwarks were white; the waterways were dark green; booms and gaff, mast color (buff); crosstrees and blocks aloft, white; and the decks oiled with pine oil. She looked like a down-east built vessel, everything handy and plenty of room on deck. The Mate met us at the gangway. He was a big fellow about forty years old and looked more like a farmer than a sailor. "Well, I suppose you're the new crew," said he. "There is some gasoline (used to run the pump and donkey engines) on the dock. Let's get it aboard before dinner."

"We ain't got our working clothes. They're coming down with the stores," Johnson answered.

"Oh, I thought those were your working clothes," said the Mate, sarcastically. "You can't hurt them anyway."

So we took about 100 gallons of gasoline which filled up the tanks. "All right, men, get your dinner," and we went into the forecastle.



The layout of the forward house of the WHITE. This plan was developed from pencil sketches made aboard the vessel by the author.

The forecastle was in the forward end of the deck house on the port side. It was about 9 by 10 feet. There was a sliding door toward the after end on the port side, and a square port lighted the place. Two double decked, fore and aft bunks running from the forward bulkhead on each side, a bench secured to each lower bunk and a little table, two feet square, fastened to the after bulkhead, made up the furniture of the place. There was a donkey's breakfast (cheap mattress) and pillow, not very clean, in each bunk. It had been newly painted white and grey and was a better forecastle than those usually found on east coast schooners.

"Well," said old John, as he sat down and lit his pipe, "if I had a nickel I'd go back to South Street. I kin see this Mate is no damn good."

"What about your clothes?" asked Andy, "You'd lose 'em."

"Oh, they're nothing but rags, except the boots. That's all I got out of my last payday."

"Well, that's pretty good for you, ain't it?"

About that time the cook, whom we could hear rattling his pots and pans in the galley, shoved back the slide of the "pie hole" which opened onto the little table, and passed in some tin plates, cups, knives, forks and spoons. "There is your mess gear," he said. "Take good care of it 'cause there ain't no more." We each picked out a set and put it in the bunk we were going to occupy. "Come and get it," sang out the cook as he started to pass the grub through the pie hole: a platter of roast beef, a big pan of boiled potatoes, a plate heaped high with home made bread, a big pot of hot coffee, a little dish of butter, a pound or so of sugar in a coffee can and a can of sweetened condensed milk.

"Well one thing sure," said Nick, "she feeds good and plenty," and he started to fill up his plate. The rest of us followed his example, then with plates on our knees, cups on deck in front of us, we sat on the benches and ate our dinner. After the meal each man took a piece of bread and wiped out his plate and put it away. The platter, pans and coffee pot were passed back to the cook who then informed us that we would get our blankets from the Captain after supper.

The truck arrived with the stores and our sea bags. We changed our clothes and went to work getting the stores aboard: salt and fresh meat, potatoes, cabbage, carrots, onions, salt fish, canned goods, eggs, butter, coffee, etc.; paint - white, green, black, red and buff; Stockholm tar for the rigging; pine oil for the deck; yards of duck for patching sails; spun yarn, marline, ratline stuff, sail twine, marline spikes, charts; red bunting for a new wind sock; coils of rope, etc. All of this was stowed away.

Fresh meat went in the ice chest; vegetables in the potato locker; paint, tar, oil, salt meat and fish in the forward lazarette; canvas under the Mate's bunk, and so on, until everything was stowed away properly.

Next a truck came alongside with 1500 pounds of ice. This went in the ice chest built next to the pantry in the cabin. It was suppertime by then, but another truck appeared with a ton of coal to be taken aboard. It was stowed in the usual but most inconvenient place, down the forward lazarette, into the alleyway between the cabin trunk and the ship's side. That over, we went forward to our supper of beef stew, bread, and tea. The tea wan't much as a beverage but it was hot, therefore excellent for cleaning the grease off the plates. The procedure was to pour a little tea in the plate, wash it around until the grease was pretty well off, then empty it overboard. Plates clean, we filled them with stew and sat down on the benches to enjoy our evening meal. After supper if there was any tea left, the plates usually got another cleaning. Coffee was rarely used to clean plates as it was a popular beverage and very seldom was any left from a meal. The mess kits were sent back to the galley and after having a smoke we went aft to get our blankets from the Skipper.

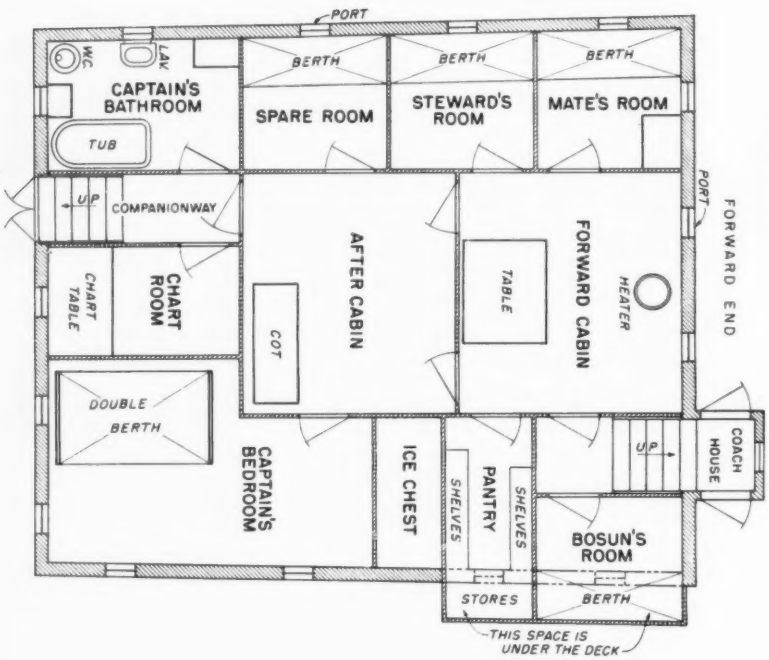
The Captain, Charles Nicklas, was a tall, thin, square shouldered man, somewhat stooped and a little faltering, as he was over seventy years old. He was smooth shaven with high cheek bones, a rather prominent Roman nose, deep set grey eyes, sparse grey hair, and a wrinkled weather beaten complexion. He was born near Hamburg, Germany in 1863. After finishing school, he went to work in an uncle's brewery, but ships interested him more than brewing and he soon went to sea. He was to spend the rest of his life there.

He was engaged for many years in the Rio coffee trade in the fast little barks and barkentines that used to sail out of Baltimore. In these vessels he worked up to Mate. By 1933 he had been a Master in sailing vessels for over thirty-five years, and held an unlimited license in sail. Later we were to learn that he was one of the finest men on the coast to serve under. He did not believe in carrying sail too long, nor did he expect the crew to do a lot of unnecessary work at sea - quite different from the Mate who did not know how to handle sail, and had been heard to say, "No one will have it easy as long as I am Mate aboard this vessel." Capt. Nicklas married twice and with his second wife made his home at a little farm in Western Maryland.

We got our blankets from him, two for each man, and while the quality was poor, they were clean. It was quite chilly that October evening and as we had no stove in the forecastle we soon put out the forecastle light and turned in for the night, fairly well satisfied with the vessel, but not with the Mate.

October 20th. We were awakened about 6:30 A.M. by the rattle of pots and pans in the galley. A quick wash in a bucket of cold water on deck and we were ready for our breakfast. "I guess there ain't no bed bugs in this packet," said Andy, "but maybe it's too cold for them to come out."

"Well she's sure full of cockroaches," said Nick, "and where there's plenty of cockroaches you don't find many bed bugs."



The after house or cabin trunk of the WHITE. Compare this with the drawing of another cabin on page 108.

"Come and get it," sang out the cook as he pushed back the slide of the pie hole and passed in a pan of oatmeal with milk already in it, a platter of ham and eggs - not very much ham and one egg for each man, but that's all a sailor ever gets on any vessel if he gets eggs at all - a pan of boiled potatoes, plenty of bread and a pot of hot coffee. Breakfast over, we sat down to have a smoke - but not for long. Promptly at 8 o'clock the Mate appeared in the doorway with a cheery, "Turn to, men."

The tug would be alongside at high water to tow us out to sea if the wind was fair, or to an anchorage inside of Sandy Hook if the wind was ahead. We had plenty to do to get the vessel ready for sea. The towing hawser was broken out and coiled down on the forecastle head; jib sheets rove off, then the fore, main, mizzen and spanker sheets; halyards thrown down from the sheer poles and coiled in the waterways; dunnage in the hold piled up alongside of keelson and secured to keep it from going adrift if the vessel rolled at sea; and finally the strongbacks and hatches were put on. We had just finished that job when the tow boat JOHN B. CADDELL came alongside. We took enough fresh water from ner to fill our tanks, singled up our mooring lines, and at noon, high water, we passed the towing hawser to the tug

and let go the remaining mooring lines. A man went to the wheel and we were on our way down the East River.

After dinner the fenders and mooring lines were stowed in the holds, the pump rigged, and the vessel was washed down fore and aft. When we got down into the lower bay the wind was about east (head wind) so the tug headed over toward an anchorage on the west bank. When the vessel arrived in a favorable position, the tow boat reduced speed, swung around and gave us a signal on her whistle to heave in the towing hawser. The Mate stood by on the forecastle head waiting for an order from the Captain to let go the anchor. The Captain stood by the rail on the poop deck looking over the side, watching the movement of the vessel through the water. As soon as the vessel lost headway he gave the order, "Let go the starboard anchor." "Let go the starboard anchor," repeated the Mate, and one of the sailors released the windlass compressor. The anchor went down with a splash, rumble and roar. "Forty-five fathoms outside the hawse pipe," shouted the Skipper, "Forty-five fathoms, Sir," repeated the Mate.

It was about 3 P.M. when we anchored. The vessel was ready for sea, so the Mate put all hands to cutting wood for the cook until 4 P.M., then he knocked us off. As we went into the forecastle, John said, "The dollars are coming in through the hawse pipe now." I think all hands would rather have had a fair wind and set sail, for one might as well be a thousand miles out to sea as anchored off Sandy Hook. We spent the hour before supper getting things in the forecastle arranged and secured for a two month trip. After supper the anchor lights were trimmed and run up.

A few minutes before 8 P.M. the Mate came forward. "Anchor watch men," he said, "call me and the Captain if the wind goes around anywhere from north to sou'west. If it breezes up and she takes any more chain let me know. One man on watch at a time will be enough. Mind the anchor lights don't go out and if it gets thick ring the bell. Call me and the cook at four o'clock. John, you and Nick will be on the Old Man's watch and you two fellows will be on my watch. Split up the anchor to suit yourselves. Keep a good lookout. There's lots of traffic around here." That said, the Mate went aft.

The anchor watch lasted from 8 P.M. until 4 A.M., two hours apiece. To settle the matter as to who was to get the first, second, and third watches, we drew match sticks, the shortest taking the first watch, etc. Despite all the instructions the Mate gave us, standing anchor watch was quite simple and it was seldom that anyone called the afterguard, even if the wind hauled around fair. If someone from aft came on deck unexpectedly and found the wind blowing fair, he was told it had just shifted, or had been baffling and you had just been waiting to see if it was going to be steady. No one but the Skipper liked to be roused out of a warm bunk to get under way on a cold, dark night.

(NOTE: The dating of the narrative is now based on "ship time", which began at 12 midnight and extended to the same hour the next night. When the author states that the Mate was called at 4 A.M., the day - Oct. 21st - was already four hours old.
--ED.)

October 21st. The last man on watch called the Mate at 4 A.M. and turned in. At 5 A.M. the Mate shoved open the forecastle door and sung out, "All hands, turn out to get under way." We rolled out of our bunks, dressed, and went out on deck to find it calm with an occasional light air from the north, not enough to set sail, so we stood around until seven bells, then went into the forecastle for breakfast. The Mate showed up again at 8 A.M. with his usual "Turn to, men." We spent the morning sweeping down the hold, rove off a new spanker and fore boom tackle, and put some

new hoops on the mizzen mast. After dinner we swept down the decks, coiled up all the loose running gear, and knocked off as it was Saturday afternoon. We spent the next hour or so scrubbing down the forecastle as, of course, sailors have to keep their quarters clean on their own time. Anchor watch was set again at 8 P.M. The wind was from the southwest, a modest breeze.

October 22nd. Sunday broke clear and warm with a southerly wind that lasted all day. We spent the day washing and mending clothes, airing bedding, reading, smoking and loafing. Toward evening a light fog set in. When the Mate came forward to call out the anchor watch at 8 P.M. he said, "If it gets very thick get the fog horn out and if anything comes close blow four or five toots." We looked at him somewhat in wonder, but he said nothing more, turned and walked aft. The fog horn is to be used only when a vessel is under way or it may be used to attract attention when a vessel is in distress.

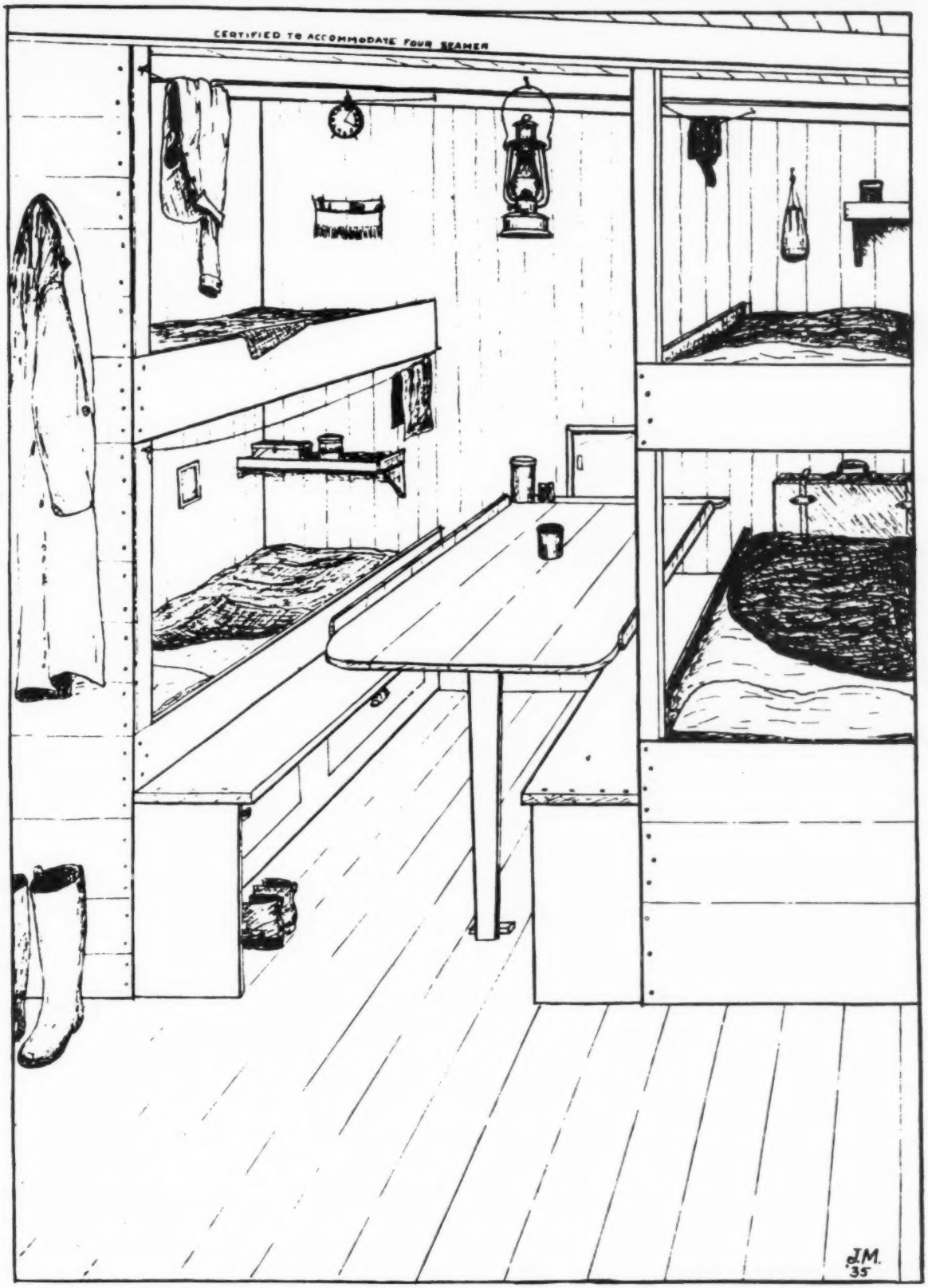
The Mate, Mr. Carter, was a native of Maryland. As I said earlier, he was about forty and looked more like a farmer than a sailor. He had a limited license in steam. Although he claimed to be an old schooner sailor, no one around here had ever heard of him. I was sure that he had not been in a schooner before, except perhaps some small Chesapeake Bay rams and two previous trips in the WHITE. If he ever knew the duties of a Mate he had forgotten them. In fact, he would not have made a good ordinary seaman. The cook said that Mr. Carter was the only man he ever saw who tried to take soundings with the deep sea lead by heaving it from the weather bow.

October 23rd. About 5 A.M. the Mate called all hands to get underway. It was no false alarm this time, and going on deck we found it blowing a fresh breeze from the northwest. The gasoline donkey engine was started and the anchor hove short, while the gaskets and stops were taken off the jibs and lower sails. The Old Man appeared on the poop deck, looked the situation over for a minute or so and sung out, "Set the mizzen." The mizzen throat and peak halyards were already led to the gypsy heads (one on each side of the forward house). The Mate took his place by the mizzen sheet and gave the order, "Heave away together." Men at the gypsy heads took a few turns, blocks creaked and the mizzen gaff started slowly up. When the luff of the sail was well stretched and the boom lifted clear of the saddle, the Mate blew his whistle, a signal to stop heaving. "Belay the throat halyards," the Mate ordered. A stopper was clapped on the halyards. "Come up the throat halyards," was the next order. A few turns around the belaying pin and the throat halyards were secure. "Heave away the peak," sung out the Mate as he slacked the sheet a bit. When the leech of the sail was taut he blew his whistle again. The peak halyards were stopped off and belayed to the pinrail, the weather boom topping lift set up, and that finished the job of setting the mizzen sail. The main sail was set next in very much the same manner, followed by the foresail. The anchor was then hove in and at the same time the fore-staysail, jib and flying jib were run up. "A man to the wheel," ordered the Mate as the vessel filled away on the port tack and began to move slowly toward Swash Channel. It took about an hour to set the sails, heave in the anchor and get under way.

To be continued

Facing page - The space allocated for the forecastle was, as required by law, 120 cubic feet per man, with not less than 16 square feet of deck space. In well designed vessels, the customary double-decked bunks were placed fore and aft, decidedly a comfort to the sailor who was in his bunk when the vessel listed over on the other tack. In a thwartship berth he would find his feet higher than his head, an uncomfortable position for most people.

-James S. McCullough


CERTIFIED TO ACCOMMODATE FOUR SEAMEN
JM
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